



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,704	12/08/2003	Norman Herron	UC0213USNA3	5871

23906 7590 07/18/2006

E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
4417 LANCASTER PIKE
WILMINGTON, DE 19805

EXAMINER

THOMAS, JAISON P

ART UNIT PAPER NUMBER

1751

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/612,704	Applicant(s) HERRON ET AL.	
	Examiner Jaison P. Thomas	Art Unit 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-61 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10 and 42-51, drawn to a composition of Formula I, Figure 1, classified in class 252, subclass 500.
 - II. Claims 11-29 and 52-61, drawn to a composition of Formula II, Figure 2, classified in class 252, subclass 500.
 - III. Claims 30-41 and 52-61, drawn to a composition of Formula III, Figure 3, classified in class 252, subclass 500.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I (and II) and III are directed to related products. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, Inventions I (and II) and III have different chemical structures and therefore can have different modes of operations for charge transport applications. Also because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.
3. No claim is generic to the following disclosed patentably distinct species:

Art Unit: 1751

(Select one species from each of the following groupings)

For quinoxaline derivative:

Species I: Formulae I(a)-I(i) and I(j) (e.g. Claim 9 and 10)

Species II: Formulae I(k)-I(ag) (e.g. Claim 9)

Species III: Formulae II(b)-II(g) and II(i)-II(k) (e.g. Claim 28)

Species IV: Formulae II(a), II(h), II(l), and II(m) (e.g. Claim 29)

For R1:

Species I: Phenyl alkenyl, phenyl alkynyl, alkynylaryl, alkenylaryl, alkylenearyl

Species II: Substituted phenyl alkenyl, substituted phenyl alkynyl

Species III: Alkyl, Alkyl groups containing 1 through 12 carbon atoms, alkenyl, alkynyl, aryl, heteroalkyl

Species IV: Arylcarbonyl, alkylacetate

Species V: H, F, Cl, Br

Species VI: Alkyleneheteroaryl, alkenylheteroaryl, alkynylheteroaryl, heteroaryl

Species VIII: $C_nH_aF_b$, $OC_nH_aF_b$, $C_6H_cF_d$, $OC_6H_cF_d$

For R2:

Species I: Phenyl and substituted phenyl groups, aryl, alkynylaryl, alkenylaryl, alkylenearyl

Species II: Pyridyl and substituted pyridyl groups

Art Unit: 1751

Species III: Biphenylene and substituted biphenylene groups

Species IV: Bipyridylene and substituted bipyridylene groups

Species V: Alkyleneheteroaryl, alkenylheteroaryl, alkynylheteroaryl, heteroaryl

Species VI: $C_nH_aF_b$, $OC_nH_aF_b$, $C_6H_cF_d$, $OC_6H_cF_d$

Species VII: Alkyl, alkenyl, alkynyl, heteroalkyl

Species VIII: H, F, Cl, Br

For R3:

Species I: Alkyl, heteroalkyl, and alkyl and heteroalkyl groups contains 1-12 carbon atoms

Species II: Alkylene, heteroalkylene

Species III: Phenyl and substituted phenyl groups

Species IV: Arylenealkylene, heteroarylenealkylene, arylene, heteroarylene

For Q:

Species I: Aryl/aromatic groups, single ring, multiple ring, and fused ring

Species II: Heteroaromatic groups, single ring, multiple ring and fused ring

Species II: Aliphatic groups and heteroaliphatic groups

Species III: Formulae V(a) thru V(h)

Species IV: Arylamines, silanes and siloxanes

Species V: Single bond, multivalent group

The species are independent or distinct because they are directed to different chemical structures and therefore can have different modes of operation. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Conclusion


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaison P. Thomas whose telephone number is (571) 272-8917. The examiner can normally be reached on Mon-Fri 8:30 am to 5:00 pm.

5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1751

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jaison Thomas
Examiner
7/03/2006


Mark Kopec
Primary Examiner